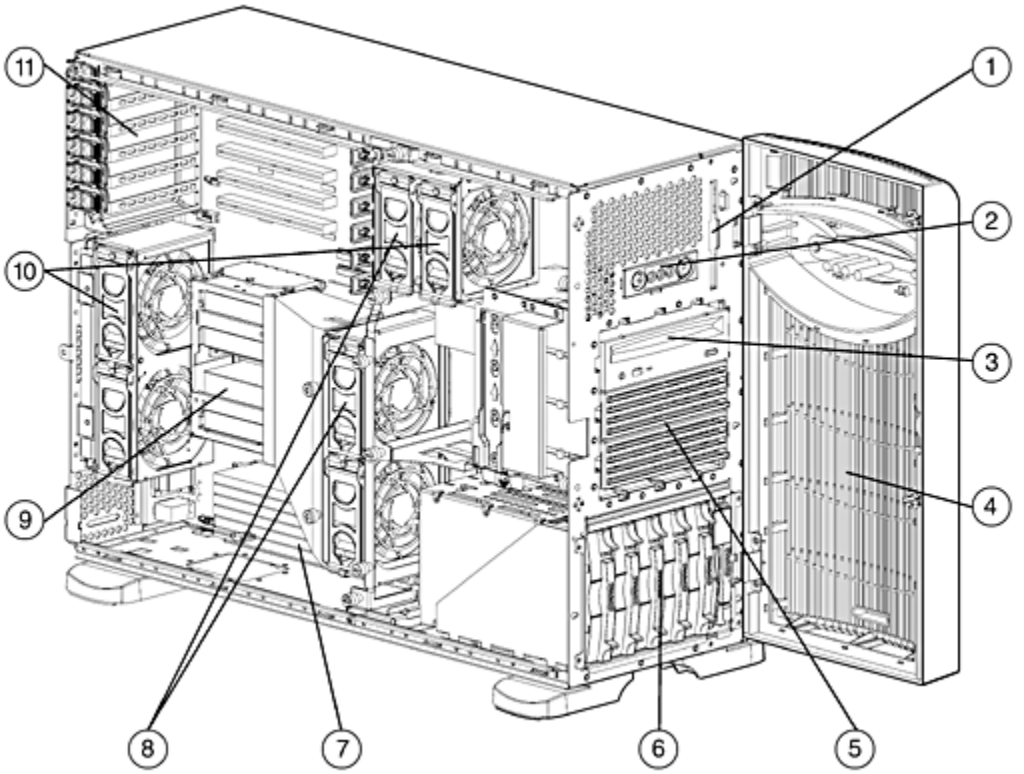
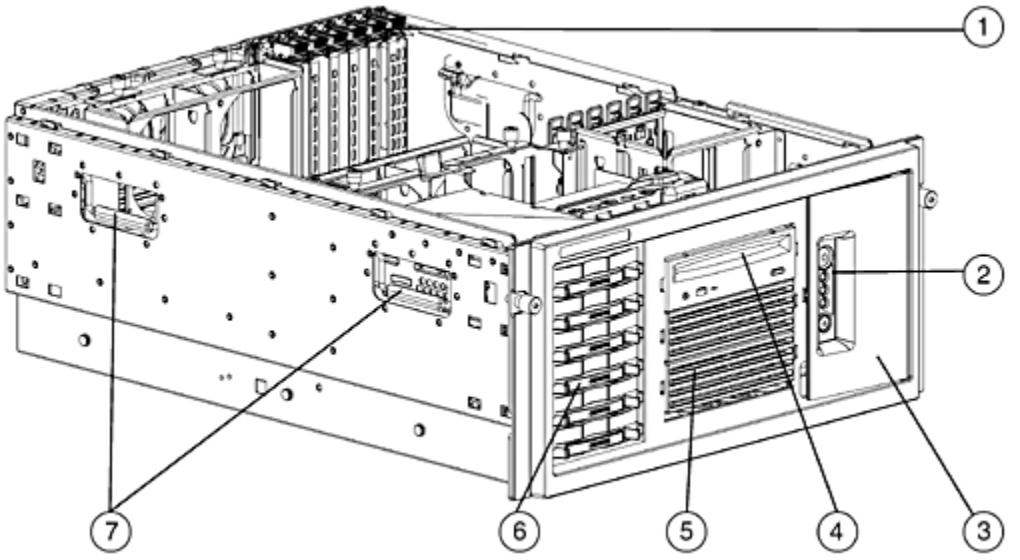
HP ProLiant ML370 Generation 3 (G3)



1. 1.44 MB Diskette Drive
2. Front Panel LEDs (show server status)
3. 48x IDE CD-ROM Drive
4. Front Bezel
5. Removable Media Bays
6. Six 1" Hot Plug Drives Bays
7. Memory Slots
8. Hot Plug Fans (standard)
9. Intel Xeon Processors
10. Hot Plug Redundant Fans (Optional)
11. 6 PCI-X Slots (6 64-Bits 100 MHz) Non Hot Plug



1. 6 PCI-X Slots (6 64-Bit-100 MHz) Non Hot Plug
2. Front Panel LEDs (show server status)
3. 1.44 MB Diskette Drive (not shown)
4. 48x IDE CD-ROM Drive
5. Removable Media Bays
6. Six 1" Hot Plug Drive Bays
7. Handles

Overview

At A Glance

- 5U Tower and Rack Models
- Powerful Integrated Lights-Out remote management technology embedded
- Up to two Intel Xeon Processors with Hyperthreading Technology
- Integrated Dual Channel Wide Ultra3 SCSI Adapter (Smart Array 6402 controller is standard on High Performance Models)
- Maximum 2 GB of 2-way interleaved capable PC2100 DDR SDRAM with Advanced ECC capabilities
- NC7781 PCI-X Gigabit NIC (embedded)
- Six PCI-X 64Bit/100-MHz expansion slots (Five available on Array and High Performance Models)
- Optional Hot plug redundant power supplies and cooling fans (Redundant fans standard on High Performance Models)
- Up to 8 Hot Plug hard drive bays (An additional two-bay drive cage standard on High Performance Models)
- Tool-free serviceability
- Tool-free, spring loaded snap-on slide rails
- Diagnostic and Unit ID LEDs
- HP Systems Insight Manager
- SmartStart
- Protected by HP Services, including a three-year, Next Business Day on-site, limited, Global warranty and extended Pre-Failure Warranty that covers processors, memory and disk drives - Certain restrictions and exclusions apply.
- Microsoft® Windows® 2000 Model is available in North America only

Standard Features

Processor One of the following depending on Model	Intel Xeon Processor 3.06 GHz/533 MHz - 512KB (up to 2 supported) Intel Xeon Processor 2.8 GHz/533 MHz - 1MB (up to 2 supported) Intel Xeon Processor 2.8 GHz/400 MHz - 512KB (up to 2 supported)		
Cache Memory One of the following depending on Model, see model descriptions below for details	512-KB level 2 cache and 1MB level 3 cache (**NOTE:** Available with 2.8 or 3.2 GHz GHz models.) 512-KB level 2 cache (**NOTE:** Available with 2.8 and 3.06 GHz models.)		
Chipset	ServerWorks GC LE Chipset **NOTE:** For more information regarding ServerWorks, please see the following URL: http://www.serverworks.com/products/overview.html.		
Memory Protection	Advanced ECC Online spare capabilities		
Memory One of the following depending on model	Type Standard Maximum	2-way interleaved capable PC2100 DDR SDRAM running at 200MHz 1 GB (2 x 512 MB) 12 GB	
Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)		
Expansion Slots	I/O (6 Total, 6 available) 64-Bit/100MHz Non-Hot Plug PCI-X	6	PCI Voltage 3.3 Volt
Manageability	Integrated Lights-Out (iLO) Management (ASIC on motherboard)		
Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter Smart Array 6402 standard on High Performance models		
Storage	Diskette Drives Optical Drive Hard Drives	1.44 MB Diskette Drive 48x IDE CD-ROM Drive None	
Maximum Internal Storage	Hot Plug SCSI	2.40 TB	6 x 300 GB 1" with standard internal hot plug drive cage + 2 x 300 GB 1" with optional ML3xx Two Bay Hot Plug SCSI Drive Cage

Standard Features

Interfaces	Parallel	1
	Serial	2
	Pointing Device (Mouse)	1
	Graphics	1
	Keyboard	1
	External SCSI	1
	Network RJ-45	1
	iLO remote management port	1
	USB	2 **NOTE:** Please see the following URL for additional information regarding USB support: http://h18004.www1.hp.com/products/servers/platforms/usb-support.html.
Graphics	Integrated ATI Rage XL Video Controller with 8MB SDRAM Video Memory	
Form Factor	Tower or Rack (5U)	
ProLiant Essentials Foundation Pack Software	HP Systems Insight Manager	HP's new HP Systems Insight Manager (HP SIM) helps maximize system uptime and performance and reduce system maintenance costs by providing proactive notification of problems before those problems result in unplanned downtime or reduced productivity. HP SIM are both easy to set up work with the Insight Management Agents, integrated Light-Out and Remote Insight Light-Outs Edition, and Version Control Agents to deliver robust fault, configuration, and asset management as well as remote administration. With HP SIM customers will also be able to take advantage of role-based security; the ability to manage ProLiant, Integrity, and HP 9000 systems; and plug-ins for storage, client, printer, and power management as well as server rapid deployment, performance management, and workload management. For more details on HP SIM visit http://www.hp.com/go/hpsim.
	SmartStart	SmartStart is a tool that simplifies server setup, providing a rapid way to deploy reliable and consistent server configurations. For more information, please visit the SmartStart Web site at http://www.hp.com/servers/smartstart. SmartStart version supported (minimum): SmartStart 6.0
	Management Agents	The Management Agents form the foundation for HP's Intelligent Manageability strategy. They provide direct, browser-based access to in-depth instrumentation built into HP servers, workstations, desktops, and portables, and send alerts to Insight Manager 7 and other enterprise management applications in case of subsystem or environmental failures. For additional information about the Management Agents and other management products from, HP please visit the management Web site at http://www.hp.com/servers/manage.
	Subscriber's Choice	Subscriber's Choice Driver and Support Alerts/Notifications is a web-based email subscription service that provides automatic delivery of software and driver change notifications for ProLiant products. Sign up at www.hp.com/go/subscriberschoice and customize your profile to receive various new alerts as they become available, on a weekly or monthly basis.

Standard Features

ROMPaq, support software, and configuration utilities	The latest software, drivers, and firmware fully optimized and tested for your ProLiant server and options available in SmartStart or downloadable from Software and Drivers download pages, linked from the SmartStart website at www.hp.com/servers/smartstart
Survey Utility and diagnostics utilities	The most advanced configuration analysis, reporting and troubleshooting utilities used by HP and at your fingertips, available in SmartStart.
Optional ProLiant Essentials Value Packs	Optional software offerings that selectively extend the functionality of an Adaptive Infrastructure to address specific business problems and needs: • Rapid Deployment Pack – an automated solution for multi-server deployment and provisioning, enabling companies to quickly and easily adapt to changing business demands. • Workload Management Pack – provides easier management of complex environments, improving overall server utilization and enabling Windows 2000 customers for the first time to confidently deploy multiple applications on a single multiprocessor ProLiant Server. • Integrated Lights-Out Advanced Pack – upgrades the Integrated Lights-Out processor to full virtual presence and control with graphical console and virtual media. • Recovery Server Option Pack – entry-level high availability software that will provide reliable protection and increased uptime against server hardware and operating system failures. • Performance Management Pack – a performance management solution that identifies and explains hardware performance bottlenecks on ProLiant servers and attached options enabling users to better utilize their valuable resources.

NOTE: Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/ProLiantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information.
NOTE: For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/ProLiantessentials.

Industry Standard Compliance	ACPI 1.0b Compliant PCI 2.2 Compliant WOL Support Microsoft® Logo certifications PXE Support

Standard Features

Intelligent Manageability	Insight Manager 7 HP Systems Insight Manager Management Agent Redundant ROM Remote Flash ROM Integrated Lights-Out Support Remote Lights-Out Edition II (Optional) Automatic Server Recovery (ASR) ROM-Based Setup Utility (RBSU) Integrated Management Log Drive Parameter Tracking (with Smart Array controller) Dynamic Sector Repairing (with Smart Array controller) Hot Spare Boot (**NOTE:** Upon the event of a failed processor or VRM in a multi-processing environment, the system will automatically reboot and use the remaining good processor(s).) Pre-Failure Warranty (covers processors, hard drives and memory)
Security	Power-on password Keyboard password Diskette drive control Diskette boot control QuickLock, Network Server Mode Parallel and serial interface control Administrator's password Disk configuration lock
Server Power Cords	110V NEMA 12ft. (3.66m) cords included in the United States; localized cables included with geographic specific models in other world regions. Also included with rack models, IEC to IEC 10 ft. (3.05m) cords.
Power Supply	500 Watt-CE Mark Compliant Hot Plug Power Supply Optional Redundant Capability
System Fans	Three fans ship standard. Redundant fan kit includes three fans plus cage for CPU fans.
Required Cabling	For required cabling information, refer to the Web site at http://h18000.www1.hp.com/products/servers/ProLiantML370/.

Standard Features

OS Support

Microsoft Windows NT® Server
Microsoft Windows 2000 Server
Windows Server 2003 Server
Novell NetWare
SCO OpenServer and OpenUNIX
Red Hat Linux
SuSE Linux
United Linux

NOTE: For a more complete and up-to-date listing of supported OSs and versions, please visit our OS Support Matrix at: http://www.hp.com/go/supportos
NOTE: For an up-to-date listing of the latest drivers available for the ProLiant ML370 G3, please see: http://h18023.www1.hp.com/support/files/server/us/index.html.
NOTE: For a more complete and up-to-date information on Linux support, please visit HP Linux Web site at http://h18000.www1.hp.com/products/servers/linux/hpLinuxcert.html.
NOTE: For more complete and up-to-date information on how to buy server operating systems from HP please visit the OS product site at:
http://h18004.www1.hp.com/products/servers/software/OEM.html

Rack Airflow Requirements

Rack 10000 series Cabinets
The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors.

CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment:

- Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of hole evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation).
- Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm).

CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage.

NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: http://h18000.www1.hp.com/products/servers/ProLiantdl380/index.html.

Installation of ProLiant ML370 G3 servers with Round Hole, Third Party or Telco Racks

The optional ML370 Round Hole Rail Kit (231122-B21) is required for installation in racks with round holes. The optional ML370 Telco Rail Kit (231121-B21) is required for installation into 2-post Telco racks.
Other third part rack solutions for ProLiant servers are available through the following URL:
http://www.racksolutions.com/compaq/products.html.

Standard Features

Factory Express Portfolio for Servers and Storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and/or storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging to meet customer needs. HP products supported through Factory Express include: HP Integrity, HP ProLiant & Blades, HP 9000 servers and the MSA1000, VA7xxx, EVA3000 & EVA5000, XP, rackable tape libraries and configurable network switches storage products.
For more information on how to order please contact your sales representative or go to http://www.hp.com/go/factory-express.

Service and Support

Three-year limited warranty, including hardware diagnostic support, pre-failure warranty (coverage of hard drives, memory and processors). The warranty is fully supported by HP Services and a worldwide network of resellers and service providers. In addition 90-day's getting started software telephone support may be covered under the warranty or available for an additional fee. Enhancements to warranty services are available through HP Care Pack services.

NOTE: Limited warranty includes 3 year parts, 3 year labor, 3-year on-site support

Care Pack services provide a range of life cycle support options that let you choose the service levels that meet your business requirements, from basic to mission-critical.

A full range of HP Care Pack hardware and software services are available including:

- Installation and start up
- Education courses
- Extended onsite hardware coverage hours from same business day 13 hours, 5 day to 24 hours, 7 days call window with options including 4-hour response or 6-hour Call To Repair
- Comprehensive range of software technical support for Microsoft, Linux, ProLiant Essentials and VMWare-based IT solutions helping to deliver high level of application availability. Response times range from 30 mins for critical problems to 2 hours.
- System Management, Performance Services and Mission Critical Support Solution

HP Care Pack services include coverage for the HP branded hardware options qualified for the server, purchased at the same time or afterward, internal to the enclosure, as well as 22" and smaller external monitors and tower UPS options up to 3kVA; these items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

NOTE: For more information on HP Care Pack services, contact any of our worldwide sales offices or resellers or visit our worldwide Web site on the internet at: http://www.hp.com/hps/carepack

NOTE: For more complete information on HP Services offerings, customers and resellers, please visit us at: http://www.hp.com/hps

NOTE: Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Models

ML370T03 X3.06-512KB/533, 1GB High Performance 310590-xx2	**Processor**	Two Intel Xeon 3.06 GHz Processor standard (up to 2 supported)
	Cache Memory	512-KB level 2 cache
	Memory	1 GB (Standard) to 12 GB (Maximum) of 2-way interleaved capable PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)
	Storage Controller	Smart Array 6402/128 Ultra320 RAID controller standard (installed in a slot) and the Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Availability	Hot Plug Redundant Fan Standards
	Internal Storage	2.40 TB maximum hot plug (with optional hard drives, two-bay drive cage standard)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower (5U)
ML370T03 X3.06-512KB/533, 1GB 310590-xx1	**Processor**	One Intel Xeon 3.06 GHz Processor standard (up to 2 supported)
	Cache Memory	512-KB level 2 cache
	Memory	1 GB (Standard) to 12 GB (Maximum) of 2-way interleaved capable PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	2.40 TB maximum hot plug (with optional hard drives & drive cage)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower (5U)
ML370T03 X3.06-512KB/533, 1GB, Array 339317-001 **NOTE:** Available in NA only.	**Processor**	One Intel Xeon 3.06 GHz Processor standard (up to 2 supported)
	Cache Memory	512-KB level 2 cache
	Memory	1 GB (Standard) to 12 GB (Maximum) of 2-way interleaved capable PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)
	Storage Controller	Smart Array 642 Array Controller in a slot and Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	2.40 TB maximum hot plug (with optional hard drives & drive cage)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower (5U)

Models

ML370T03 X2.8GHz-1MB/533, 1GB 352528-xx1	**Processor**	One Intel Xeon Processors 2.8 GHz Processors standard (up to 2 supported)
	Cache Memory	512KB level 2 cache and1-MB level 3 cache
	Memory	1 GB (Standard) to 12 GB (Maximum) of 2-way interleaved capable PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)
	Storage Controller	Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Internal Storage	2.40 TB maximum hot plug (with optional hard drives & drive cage)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Tower (5U)

ML370R03 X3.06-512KB/533, 1GB High Performance 310589-xx2	**Processor**	Two Intel Xeon 3.06 GHz Processors standard
	Cache Memory	512-KB level 2 cache
	Memory	1 GB (Standard) to 12 GB (Maximum) of 2-way interleaved capable PC2100 DDR SDRAM running at 266MHz, with Advanced ECC capabilities
	Network Controller	Integrated NC7781 PCI-X Gigabit NIC (single port)
	Storage Controller	Smart Array 6402/128 Ultra320 RAID controller standard (installed in a slot) and the Integrated Dual Channel Wide Ultra3 SCSI Adapter
	Hard Drive	None ship standard
	Availability	Hot Plug Redundat Fans Standard
	Internal Storage	2.40 TB maximum hot plug (with optional hard drives, two-bay drive cage standard)
	Optical Drive	48x IDE CD-ROM Drive
	Diskette Drive	1.44 MB Diskette Drive
	Form Factor	Rack (5U)

Country Code Key	**Tower Code Key**	**Rack Code Key**
XX=00	U.S. English	U.S. English
XX=01	Australia	N/A
XX=03	UK	N/A
XX=04	Germany	N/A
XX=05	France	N/A
XX=29	Japan	Japan
XX=20	Brazil	N/A
XX=37	APD	APD
XX=42	Europe	Europe
XX=AA	PRC	PRC

Options

ProLiant ML370 Unique Options	Tower to Rack Conversion Kit	225074-B22
	ML370 Round Hole Rail Kit	231122-B21
	ML370 Telco Rail Kit	231121-B21
	Hot Plug Redundant Power Supply Option Kit (U.S.)	225075-001
	Hot Plug Redundant Power Supply Option Kit (Australia)	225075-011
	Hot Plug Redundant Power Supply Option Kit (EURO)	225075-021
	Hot Plug Redundant Power Supply Option Kit (UK)	225075-031
	Hot Plug Redundant Power Supply Option Kit (Japan)	225075-291
	Redundant Hot Plug Fan Option Kit	225073-B21
Software	HP digital asset protection	302316-001
ProLiant Essentials Value Pack Software	Rapid Deployment Pack, 1 User, V1.x **NOTE**: This license allows 1 server to be managed and deployed via the Deployment Server.	267196-B21
	Rapid Deployment Pack, 1 User, V1.x (Japan) **NOTE:** This license allows 1 server to be managed and deployed via the Deployment Server.	267196-291
	Rapid Deployment Pack, 10 Users, V1.x **NOTE**: This license allows 10 servers to be managed and deployed via the Deployment Server.	269817-B21
	Rapid Deployment Pack, 10 Users, V1.x (Japan) **NOTE**: This license allows 10 servers to be managed and deployed via the Deployment Server.	269817-291
	Flexible Quantity License Kit	302127-B21
	License-Only - for use with a Master License Agreement	302128-B21
	ProLiant Essentials Workload Management Pack 2.0 (Featuring Compaq Resource Partitioning Manager version 2.0)	303284-B21
	ProLiant Essentials Recovery Server Option Pack	280189-B21
	ProLiant Essentials Performance Management Pack, Single License **NOTE:** This license allows 1 server to be managed by Performance Management Pack.	306696-B21
	ProLiant Essentials Performance Management Pack, 10 Pack Server License	374055-B21
	Performance Management Pack, flexible license kit **NOTE:** A single pack is shipped with a single license key for the total number of licenses ordered.	306697-B21
	ProLiant Essentials Integrated Lights-Out Advanced Pack (Featuring: sophisticated virtual administration features for ultimate control of servers in the data centers and remote sites)	263825-B21
	ProLiant Essentials Intelligent Networking Pack, 1 License	372906-B21
	ProLiant Essentials Intelligent Networking Pack Flex License	372950-B21
	ProLiant Essentials Intelligent Networking Pack Track License	372951-B21
	ProLiant Essentials Virtual Machine Management Pack, Single-Server License **NOTE:** For use with a single server. Contains one license with a unique license activation key and documentation.	372214-B21
	ProLiant Essentials Virtual Machine Management Pack, Flexible-Quantity License **NOTE:** For use with multiple servers. This part number can be used to purchase multiple licenses with a single activation key.	372215-B21

Options

	ProLiant Essentials Virtual Machine Management Pack, Tracking License **NOTE:** For use with signed and implemented Activation Key Agreements only. Purchase of this part number entitles the customer to deploy additional licenses of the product under the terms of the existing Activation Key Agreement. **NOTE:** Flexible and volume quantity license kits are available for ProLiant Essentials Value Packs. Refer to http://www.hp.com/servers/ProLiantessentials or the various ProLiant Essentials Value Pack product QuickSpecs for more information. **NOTE:** For more information regarding ProLiant Essentials Software, please see the following URL: http://www.hp.com/servers/ProLiantessentials.	372216-B21
Processor	Intel Xeon 3.2-2MB/533MHz Processor Option Kit	352568-B21
	Intel Xeon 3.2-1MB/533MHz Processor Option Kit	333714-B21
	Intel Xeon 3.06-1MB/533MHz Processor Option Kit	333713-B21
	Intel Xeon 3.06-512KB/533MHz Processor Option Kit	257916-B21
	Intel Xeon 2.8-1MB/533MHz Processor Option Kit	352567-B21
	Intel Xeon 2.8-512KB/400MHz Processor Option Kit	257915-B21
	NOTE: Mixing processor speeds and cache sizes is not supported. When operating with two processors, speed and cache size should match.	
Memory	512MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 256 MB)	300678-B21
	1024MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 512 MB)	300679-B21
	2048MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 1024 MB)	300680-B21
	4096MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 2048 MB)	300682-B21
Internal Storage	ML3xx Two Bay Hot Plug SCSI Drive Cage **NOTE**: The drive cage option kit (PN 244059-B21) has one 1" drive bay and one 1.6" drive bay, installed in two available removable media bays.	244059-B21
Optical Drives	16X DVD-ROM Drive Option Kit (Carbon)	217053-B21
	CD-RW/DVD ROM combo Drive Option Kit **NOTE:** The DVD-ROM drive is supported in the CD-ROM bay and in the removable media bay. If placed in the removable media bay, it requires the 2-Device IDE cable (PN 305381-B21).	331346-B21

Options

Hard Drives	***Ultra 320 SCSI – Universal Hot Plug***	
	300-GB 10,000 rpm U320 Universal Hard Drive (1")	350964-B22
	146.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286716-B22
	72.8-GB 10,000 rpm U320 Universal Hard Drive (1")	286714-B22
	72.8-GB 15,000 rpm U320 Universal Hard Drive (1")	286778-B22
	36.4-GB 15,000 rpm U320 Universal Hard Drive (1")	286776-B22
	NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.	
	NOTE: Please see the Hard Drive QuickSpecs for Technical Specifications such as capacity, height, width, interface, transfer rate, seek time, physical configuration, and operating temperature: U320 Hard Drive QS: http://h18000.www1.hp.com/products/quickspecs/11531_div/11531_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/11531_na/11531_na.HTML (North America)	
Storage Controllers	Smart Array 6402/128 Controller	273915-B21
	Smart Array 6404/256 Controller	273914-B21
	Smart Array 641 Controller	291966-B21
	Smart Array 642 Controller	291967-B21
	128MB Cache Module for Smart Array 5302 Controller	153506-B21
	256MB Battery Backed Cache Module **NOTE:** This 256MB Battery Backed Cache Module supports the Smart Array 5300 series controllers, HP StorageWorks Modular Smart Array 1000 and the HP StorageWorks Modular Smart Array 500.	254786-B21
	256MB DDR, Battery-Backed Cache Upgrade Kit for SA-6400 **NOTE:** This 256-MB Battery-Backed Cache Module upgrade kit supports the Smart Array 6400 series controller only.	273913-B21
	128MB Battery-Backed Cache Enabler **NOTE:** This 128MB BBWC supports the Smart Array 641 Controller and Smart Array 642 Controller.	351580-B21
	64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter	268351-B21
	Ultra320 Expansion Module for SA-6402	273911-B21
	64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS	284688-B21
	NOTE: Please see the following Controller or SCSI Adapter QuickSpecs for Technical Specifications such as PCI Bus, PCI Peak Data Transfer Rate, SCSI Protocols supported, SCSI Peak Data Transfer Rate, Channels, SCSI Ports, Drives supported, Cache, RAID support, and additional information: http://h18000.www1.hp.com/products/quickspecs/10640_div/10640_div.HTML (Smart Array 5300 Series) http://h18000.www1.hp.com/products/quickspecs/11587_div/11587_div.HTML (Smart Array 6400 Series) http://h18000.www1.hp.com/products/quickspecs/12067_div/12067_div.HTML (Smart Array 641) http://h18000.www1.hp.com/products/quickspecs/12069_div/12069_div.HTML (Smart Array 642) http://h18000.www1.hp.com/products/quickspecs/10429_div/10429_div.HTML (SCSI Adapter)	

Options

Communications	HP NC6170 PCI-X Dual Port 1000SX Gigabit Server Adapter	313879-B21
	HP NC6770 PCI-X Gigabit Server Adapter, 1000-SX	244949-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC1020 PCI Single Port 1000T Gigabit Server Adapter	353377-B21
	HP NC7771 PCI-X Single Port 1000T Gigabit Server Adapter	290563-B21
	NOTE: Any NIC on the option list can be used for redundancy with the embedded NC7781 Network Controller	
Redundant Options	Hot Plug Redundant Power Supply Option Kit (U.S.)	225075-001
	Hot Plug Redundant Power Supply Option Kit (Australia)	225075-011
	Hot Plug Redundant Power Supply Option Kit (EURO)	225075-021
	Hot Plug Redundant Power Supply Option Kit (UK)	225075-031
	Hot Plug Redundant Power Supply Option Kit (Japan)	225075-291
	Redundant Hot Plug Fan Option Kit	225073-B21
Management Options	Remote Insight Lights-Out Edition II (NA, LA)	227251-001
	NOTE: USB Virtual Media Not Supported on 2.4 and 2.8GHz products.	
	Remote Insight Lights-Out Edition II (EMEA)	227251-021
	NOTE: USB Virtual Media Not Supported on 2.4 and 2.8GHz products.	
	Remote Insight Lights-Out Edition II (APD, Japan)	227251-371
	NOTE: USB Virtual Media Not Supported on 2.4 and 2.8GHz products.	
	NOTE: The RILOE II USB Virtual Media feature is not supported on the 2.40 and 2.80 GHz versions of the ProLiant DL380 G3 and ProLiant ML370 G3 servers. The RILOE II cannot be used to connect the local client floppy and CD devices as USB virtual devices to the remote server. All other RILOE II features are supported on these servers. The non-USB based RILOE II Virtual Floppy feature is still supported, allowing you to perform functions such as remote ROM upgrades and server deployment. The Virtual Floppy feature requires loading the floppy image in to the RILOE II. For more details, please refer to the user guide of the RILOE II.	
Tape Drives	**NOTE:** In order to install certain tape drives internally, you may need to remove the rails that come standard on the drives and then re-insert the screws in the mounting holes. Mounting screws are shipped standard with server.	
	NOTE: External tape devices, including both tape drives and tape arrays/enclosures, can be directly connected to the VHDCI SCSI port located on the back of the server. Use of a SCSI adapter to connect these devices is optional, not required.	
	Ultrium Tape Drives - External, Rack-Mount and Array	
	HP StorageWorks Ultrium 215 Tape Drive, Internal (Carbon)	Q1543A
	HP StorageWorks Ultrium 215 Tape Drive, External (Carbon)	Q1545A
	HP StorageWorks Ultrium 215 rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350544-B21
	HP StorageWorks Ultrium 215 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7492B
	HP StorageWorks Ultrium 230 Tape Drive, Internal (Carbon)	Q1515A
	HP StorageWorks Ultrium 230 Tape Drive, External (Carbon)	Q1517A
	HP StorageWorks Ultrium 230, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350545-B21

HP StorageWorks Ultrium 230 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7470B
HP StorageWorks Ultrium 460 Tape Drive, Internal (Carbon)	Q1518A
HP StorageWorks Ultrium 460 Tape Drive, External (Carbon)	Q1520A
HP StorageWorks Ultrium 460, Rack-mount (Carbon) - Single drive installed in a 3U rack-mount kit	350546-B21
HP StorageWorks Ultrium 460 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1512B
HP StorageWorks Ultrium 960 Tape Drive, Internal (Carbonite)	Q1538A
HP StorageWorks Ultrium 960 Tape Drive, External (Carbonite)	Q1539A
HP StorageWorks Ultrium 960 Rack-mount (Carbonite) - Single drive installed in a 3U rack-mount kit	Q1595A

NOTE: Please see the HP StorageWorks Ultrium 215, 230, and 460 Tape Drive QuickSpecs for additional options such as controllers, media, and other related items:
http://h18006.www1.hp.com/products/quickspecs/11739_div/11739_div.html (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/11739_na/11739_na.html (North America)
http://h18006.www1.hp.com/products/quickspecs/12128_div/12128_div.html (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/12128_na/12128_na.html (North America)

For an up-to-date listing of the latest O/S and software support details for HP Ultrium tape drives, please visit: http://www.hp.com/go/connect

DAT Tape Drives - External, Rack-Mount and Array

HP StorageWorks DAT 72 Tape Drive, External (Carbon)	Q1523A
HP StorageWorks DAT 72 Tape Drive, Internal (Carbon)	Q1522A
HP StorageWorks DAT 72 Tape Drive, Internal Hot-Plug (Carbon)	Q1529A
HP StorageWorks DAT 72 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	Q1524B
HP StorageWorks DAT 40 Tape Drive, External (Carbon)	C5687C
HP StorageWorks DAT 40 Tape Drive, Internal (Carbon)	C5686B
HP StorageWorks DAT 40 Tape Drive, Internal Hot-Plug (Carbon)	Q1546A
HP StorageWorks DAT 40 Array Module (Carbon) - Offline hot-swap drive for Tape Array 5300	C7497B
HP StorageWorks DAT 24e Tape Drive, External (Flint)	C1556D
HP StorageWorks DAT 24e Tape Drive, Internal (Flint)	C1555D
HP StorageWorks DAT 24 Array Module (Carbon)- Offline hot-swap drive for Tape Array 5300	C7498A

NOTE: Please see the DAT Tape Drive QuickSpecs for controllers, media, and other options:
http://h18000.www1.hp.com/products/quickspecs/11883_div/11883_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11883_na/11883_na.HTML (North America)
For an up-to-date listing of the latest O/S and software support details for HP DAT drives, please visit: http://www.hp.com/go/connect

Internal and External DLT VS Tape Drives

HP StorageWorks DLT VS80 Tape Drive, Internal (Carbon) WW	337699-B21
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) NA	337699-B22

HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Int'l	337699-B31
HP StorageWorks DLT VS80 Tape Drive, External (Carbon) Japan	337699-291

NOTE: Please see the DLT VS80 Tape Drive QuickSpecs for additional options such as host bus adapters, controllers, media, and other options:
http://h18006.www1.hp.com/products/quickspecs/11403_div/11403_div.HTML (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/11403_na/11403_na.HTML (North America)
For an up-to-date listing of the latest O/S and software support details for the DLT VS80, please visit: http://www.hp.com/go/connect

Internal, External and Rack-mount SDLT Tape Drives

HP StorageWorks SDLT 320 Tape Drive, Internal (Carbon) WW	257319-B21
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) NA	257319-001
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Int'l	257319-B31
HP StorageWorks SDLT 320 Tape Drive, External (Carbon) Japan	257319-291

NOTE: Please see the SDLT 320 Tape Drive QuickSpecs for additional options such as adapters, controllers, and media.
http://h18006.www1.hp.com/products/quickspecs/11840_div/11840_div.HTML (Worldwide)
http://h18006.www1.hp.com/products/quickspecs/11840_na/11840_na.HTML (North America)
For an up-to-date listing of the latest O/S and software support details for HP SDLT tape drives, please visit: http://www.hp.com/go/connect.

Rack-Mount Tape Drive Enclosures

HP StorageWorks 1U Rack-Mount Kit	A7445A

NOTE: The 1U Rack-mount Kit can support up to 2 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT 24, DAT40, DAT72, DLT VS 80, and Ultrium 215 tape drives.

HP StorageWorks 3U Rack-Mount Kit	274338-B21

NOTE: The 3U Rack-Mount Kit can support up to 2 full-height or 4 half-height tape drives and compatible with multiple Single-Ended and LVD SCSI tape drives including DAT, DLT VS80, SDLT 320, Ultrium 215, Ultrium 230, and Ultrium 460 Tape Drives.

HP StorageWorks 5U Rack-Mount Kit	274339-B21

NOTE: The 5U Rack-Mount Kit can support up to 4 full-height tape drives and is compatible with SDLT 320, Ultrium 230, and Ultrium 460 tape drives.

NOTE: Please see the Rack-Mount Tape Drive Kits QuickSpecs for additional information regarding these kits:
http://h18000.www1.hp.com/products/quickspecs/10854_div/10854_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/10854_na/10854_na.HTML (North America)

HP StorageWorks Tape Array 5300	C7508A

NOTE: The Tape Array 5300 is a 3U enclosure that supports up to 2 full-height or 4 half-height hot-swap array modules, including DAT and Ultrium tape drives. Cables and terminators are not included and must be ordered separately.
NOTE: Please see the Tape Array 5300 QuickSpecs for additional information regarding this product.
http://h18000.www1.hp.com/products/quickspecs/11878_div/11878_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11878_na/11878_na.HTML (North America)

Accessories for 3U & 5U Rack-mount Tape Drive Kits

Options

	LVD Cable Kit, VHDCI/HD68 **NOTE:** For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.	168048-B21
	LVD Cable Kit, HD68/HD68 **NOTE:** For use with the 3U Rack-mount Kit and 5U Rack-mount Kit only.	242381-B21
	PSU/Fan Upgrade Kit - Redundant hot-swap power supply unit and fan for Tape Array 5300.	
	68-pin HD multi-mode terminator	C2364A
	1.0m 68-pin VHDCI to 68-pin HD cable	C2361B
	2.5m 68-pin VHDCI to 68-pin HD cable	C2362B
	5.0m 68-pin VHDCI to 68-pin HD cable	C2365A
	10.0m 68-pin VHDCI to 68-pin HD cable	C2363B
	0.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2978B
	1.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2979B
	0.9m 68-pin HDI to 68-pin HD cable LVD/SE	C2911C
	2.5m 68-pin HDI to 68-pin HD cable LVD/SE	C2924C
	NOTE: For use with Tape Array 5300 only	
Tape Autoloaders	**DAT Autoloader**	
	HP StorageWorks DAT 72x6 Internal Autoloader	Q1566A
	HP StorageWorks DAT 72x6 External Autoloader	Q1567A
	NOTE: Please see the DAT Tape Autoloader QuickSpecs for additional options such as host bus adapters, controllers and media: http://h18000.www1.hp.com/products/quickspecs/11985_div/11985_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/11985_na/11985_na.HTML (North America)	
	HP StorageWorks 1/8 Tape Autoloader	
	1/8 Ultrium 460 Tape Autoloader, Tabletop	AA927A
	1/8 SDLT 320 Tape Autoloader, Tabletop	AA926A
	1/8 Ultrium 230 Tape Autoloader, Tabletop	C9572CB
	1/8 DLT VS80 Tape Autoloader, Tabletop	C9264CB
	1/8 Tape Autoloader Rackmount Kit	C9268R
	NOTE: Required to install the 1/8 tape autoloader in a standard 19-inch rack **NOTE:** Please reference the 1/8 Tape Autoloader QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs	
	HP StorageWorks SSL1016 Tape Autoloader	
	SSL1016 Ultrium 460 Tape Autoloader	330821-B21
	SSL1016 SDLT 320 Tape Autoloader	330816-B21
	NOTE: Please reference the SSL1016 Tape Autoloader QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs	
Tape Libraries	**HP StorageWorks MSL6000 Tape Library**	
	MSL6030, 1 drive, 30 slots, Ultrium 460, RM	330731-B22
	MSL6030, 2 drive, 30 slots, Ultrium 460, RM	330731-B23

Options

MSL6030, 1 drive, 30 slots, Ultrium 460, RM with embedded FC router	330731-B24
MSL6030, 2 drive, 30 slots, Ultrium 460, RM with embedded FC router	330731-B25
MSL6060, 2 drive, 60 slot, Ultrium 460, RM	331196-B21
MSL6060, 2 drive, 60 slot, Ultrium 460, RM with embedded FC router	331196-B22

NOTE: Please reference the MSL6000 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

HP StorageWorks MSL5026S2 Tape Library

MSL5026S2, 1 drive, 26 slots, SDLT 320, RM	293472-B22
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM	293472-B23
MSL5026S2, 1 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B24
MSL5026S2, 2 drive, 26 slots, SDLT 320, RM with embedded FC router	293472-B25

NOTE: Please reference the MSL5026S2 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

HP StorageWorks MSL5052S2 Tape Library

MSL5052S2, 2 drive, 52 slots, SDLT 320, RM	293474-B21
MSL5052S2, 2 drive, 52 slots, SDLT 320, RM with embedded FC router	293474-B24

NOTE: Please reference the MSL5052S2 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

HP StorageWorks MSL5030 Tape Library

MSL5030, 1 drive, 30 slots, Ultrium 230, RM	301897-B22
MSL5030, 2 drive, 30 slots, Ultrium 230, RM	301897-B23
MSL5030, 1 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B24
MSL5030, 2 drive, 30 slots, Ultrium 230, RM with embedded FC router	301897-B25

NOTE: Please reference the MSL5030 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

HP StorageWorks MSL5060 Tape Library

MSL5060, 2 drive, 60 slots, Ultrium 230, RM	301899-B22
MSL5060, 2 drive, 60 slots, Ultrium 230, RM with embedded FC router	301899-B23

NOTE: Please reference the MSL5060 Tape Library QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs

HP StorageWorks ESL E-Series Tape Libraries

ESL Extended 712e Tape Library, 0 drive, 712 LTO slots	AA934B
ESL Extended 630e Tape Library, 0 drive, 630 SDLT slots	AA935B
ESL Extended 322e Tape Library, 0 drive, 322 LTO slots	AA939B
ESL Extended 286e Tape Library, 0 drive, 286 SDLT slots	AA940B
ESL E-Series Ultrium 460 drive kit	AA937A
ESL E-Series Ultrium 460-FC drive kit	AA941A
ESL E-Series SDLT 320 drive kit	AA936A
ESL E-Series e2400-FC 2G Interface Controller	AA928A

Options

	NOTE: Please reference the ESL E-Series Tape Libraries QuickSpecs at http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at http://www.hp.com/go/ebs	
Magneto-Optical Jukeboxes	**HP StorageWorks 9.1 GB Entry-level Optical Storage**	
	220mx, 1 drive, 24 slot jukebox	C1118M
	220mx, 2 drive, 24 slot jukebox	C1119M
	NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution	
	HP StorageWorks 9.1 GB Mid-range Optical Jukeboxes	
	300mx, 2 drive, 32 slot jukebox	C1150M
	600mx, 4 drive, 64 slot jukebox	C1160M
	700mx, 2 drive, 76 slot jukebox	C1170M
	NOTE: Please reference the Magneto-Optical Jukebox data sheets at http://www.hp.com/go/optical for additional information needed to create a complete solution	
Ultra Density Optical Jukeboxes	700ux, 1 drive, 24 slot jukebox	AA962A
	700ux, 2 drive, 24 slot jukebox	AA963A
	1100ux, 2 drive, 38 slot jukebox	AA964A
	1000ux, 2 drive, 32 slot jukebox	AA965A
	1900ux, 4 drive, 64 slot jukebox	AA966A
	1900ux, 4 mixed drive, 64 slot jukebox	AA968A
	2300ux, 2 drive, 76 slot jukebox	AA967A
	NOTE: Please reference the Ultra Density Optical Jukebox QuickSpecs at http://www.hp.com/go/optical for additional information needed to create a complete solution	
HP StorageWorks Modular Smart Array 500	HP StorageWorks Modular Smart Array 500 Generation 2	335880-B21
	NOTE: Please see the Modular Smart Array 500 Generation 2 QuickSpecs for additional information including configuration steps and additional options needed for a complete solution at: http://h18000.www1.hp.com/products/quickspecs/11956_na/11956_na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11956_div/11956_div.HTML (Worldwide)	

Options

Cluster Options	HP Serviceguard for Linux ProLiant Cluster (2 node license cluster kit) A.11.15 **NOTE:** Kit includes 2 licenses, documentation and an Ethernet crossover cable.	305199-B24
	HP Serviceguard for Linux (single license version for ordering flexibility and to ease ordering for larger cluster) A.11.15 **NOTE:** Kit includes single license version and documentation.	307754-B24
	NOTE: For additional information regarding the HP Serviceguard for Linux License, please see the following QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/11518_na/11518_na.html (North America) http://h18000.www1.hp.com/products/quickspecs/11518_div/11518_div.html (Worldwide)	
External Storage – Tower & Rack	HP StorageWorks Modular Smart Array 30 SB **NOTE:** Rack-mountable 14 drive enclosure with single bus, redundant power supplies	302969-B21
	HP StorageWorks Modular Smart Array 30 DB **NOTE:** Rack-mountable 14 drive enclosure with dual bus, redundant power supplies	302970-B21
	NOTE: The Modular Smart Array Enclosure 30 Family supports the Wide Ultra3, Ultra320 1" Hot Plug Hard Drives.	
	StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - WW	359079-B21
	StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - Japan	359079-291
	StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - APD	359079-371
	StorageWorks Modular Smart Array 30 OpenView Storage Mirroring HA Kit - EURO	359079-421
	Redundant Power Supply 499W	338296-B21
	StorageWorks Single Bus U320 I/O Module	287484-B21
	StorageWorks Dual Bus U320 I/O Module	287483-B21
HP StorageWorks Modular Smart Array 1500	Modular Smart Array 1500 Controller Shelf **NOTE:** Please see the StorageWorks Modular SAN Array 1500 QuickSpecs for additional options and configuration information at: http://www.hp.com/go/MSA1500cs	AA986A
HP StorageWorks Modular Smart Array 1000	HP StorageWorks Modular Smart Array 1000 **NOTE:** Please see the Modular Smart Array 1000 QuickSpecs for additional options and configuration information at http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)	201723-B22

Options

Network Storage Router	M2402 2FCX 4SCSI LVD Network Storage Router	262653-B21
	M2402 2FCX 4SCSI HVD Network Storage Router	262654-B21
	M2402 4 channel LVD SCSI Module	262659-B21
	M2402 4 channel HVD SCSI Module	262660-B21
	M2402 2 channel FC Module	262661-B21
StorageWorks Options	StorageWorks SAN Switch 2/8-EL Upgrade Kit	325888-B21
UPS Power Cord Matrix	**Please see the UPS and PDU cable matrix that lists cable descriptions, requirements, and specifications for UPS and PDU units**. ftp://ftp.compaq.com/pub/products/servers/ProLiantstorage/power-protection/powercordmatrix.pdf.	
Uninterruptible Power Supply - Tower	HP UPS Model T700 (700VA, 500 Watt), Low Voltage (NA)	204015-001
	HP UPS Model T700 (700VA, 500 Watt), High Voltage (Int'l)	204015-B31
	HP UPS Model T700 (700VA, 500 Watt), Low Voltage (Japan)	204015-291
	HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (NA)	204155-001
	HP UPS Model T1000 XR (1000VA, 700 Watt), Low Voltage (Japan)	312803-291
	HP UPS Model T1000 XR ((1000VA, 700 Watt), High Voltage (Int'l)	204155-B31
	HP UPS Model T1500 XR (1440VA, 1050 Watt), Low Voltage (NA)	204155-002
	HP UPS Model T1500 XR (1500VA, 1050 Watt), High Voltage (Int'l)	204155-B32
	HP UPS Model T1500 XR (1500VA, 1050 Watt), Low Voltage (Japan)	204155-292
	HP UPS Model T2200 XR (1920VA, 1600 Watt), Low Voltage (NA)	204451-001
	HP UPS Model T2200 XR (2080VA, 1600 Watt), High Voltage (NA)	204451-002
	HP UPS Model T2200 XR (2200VA, 1600 Watt), Low Voltage (NA)	204451-B31
	HP UPS Model T2200 XR (2200VA, 1600 Watt), Low Voltage (Japan)	204451-291
Uninterruptible Power Systems - HP Rack UPS	HP UPS R1500 XR (1440VA, 1340 Watt), Low Voltage (NA)	204404-001
	HP UPS R1500 XR (1500VA, 1340 Watt), High Voltage (Int'l)	204404-B31
	HP UPS R1500 XR (1500VA, 1340 Watt), Low Voltage (Japan)	204404-291
	HP UPS R3000 XR (2880VA, 2700 Watt), Low Voltage (NA)	192186-001
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (NA)	192186-002
	HP UPS R3000 XR (2400VA, 2250 Watt), Low Voltage (Japan)	192186-291
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Japan)	192186-292
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (Int'l - detachable cord)	192186-B31
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A IEC309 Plug)	192186-B32
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A CEE 7/7 SCHUKO Plug)	192186-B33
	HP UPS R3000 XR (3000VA, 2700 Watt), High Voltage (16A BS-546 Plug)	192186-AR1
	HP UPS R5500 XR, (5000VA, 4500 Watt), High Voltage (NA/Jpn)	326529-D71
	HP UPS R5500 XR, (6000VA, 5400 Watt), High Voltage (Int'l)	326529-B31
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (NA)	347207-001
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (Int'l)	347207-B31
	Rack-Mountable UPS R6000 (6000VA, 6000 Watt) High Voltage (Japan)	347207-291
	HP UPS R12000 XR, N+ x (12KVA, 12KW) High Voltage (WW)	207552-B22
	NOTE: HP UPS R6000 has a hardwired input; and the UPS R12000 XR has a hardwired input and output connection.	

Options

HP Power Distribution Unit with Power Monitoring	HP Power Distribution Unit with Power Monitoring Model S2324 - dual input, 3 phase, 24A (NA/JPN)	370959-D71
	HP Power Distribution Unit with Power Monitoring Model S1324 - single input, 3 phase, 24A (NA/JPN)	370960-D71
	HP Power Distribution Unit with Power Monitoring Model S2140 - dual input, 1 phase, 40A (NA/JPN)	370961-D71
	HP Power Distribution Unit with Power Monitoring Model S1140 - single input, 1 phase, 40A (NA/JPN)	370962-D71
	HP Power Distribution Unit with Power Monitoring Model S2316 - dual input, 3 phase, 16A (INTL)	370963-D71
	HP Power Distribution Unit with Power Monitoring Model S1316 - single input, 3 phase, 16A (INTL)	370964-D71
	HP Power Distribution Unit with Power Monitoring Model S2132 - dual input, 1 phase, 32A (INTL)	370965-D71
	HP Power Distribution Unit with Power Monitoring Model S1132 - single input, 1 phase, 32A (INTL)	370966-D71
Modular PDUs – 1U/0U (up to 32 outlets)	HP Modular Power Distribution Units (mPDU), Low Volt Model, 24A (100-127 VAC) (NA, Japan)	252663-D71
	NOTE: The above mPDU may also be used to connect to the low volt model of the UPS R3000 XR.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 24A (200-240 VAC) (NA, Japan)	252663-D72
	NOTE: L6-30 input.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 32A (200-240 VAC) (Int'l)	252663-B31
	HP Modular Power Distribution Units (mPDU), High Volt Model, 40A (200-240 VAC) (WW)	252663-B21
	NOTE: The 40A model has a hardwired input.	
	HP Modular Power Distribution Units (mPDU), High Volt Model, 16A (200-240 VAC) (WW)	252663-B24
	NOTE: This PDU has a detachable input power cord and allows for adaptability to country specific power requirements. This model may also be used with the high volt UPSs R3000 XR and R6000.	
	NOTE: Please see the following Modular Power Distribution Unit (Zero-U/1U Modular PDUs) QuickSpecs for additional options including shorter jumper cables and country specific power cords: http://h18000.www1.hp.com/products/quickspecs/11041 na/11041 na.HTML (North America) http://h18000.www1.hp.com/products/quickspecs/11041 div/11041 div.HTML (Worldwide)	
USB Options	USB 1.44-MB External Diskette Drive (Carbonite)	DC141B
	256MB HP Drive Key II (USB 2.0)	PH657A
	USB Optical Scroll Mouse (Carbonite)	DD441B

Options

Custom Builder	Please see the Enterprise Configurator for configuration assistance at: www.hp.com/products/configurator.	
Rack Conversion Kit	Tower to Rack Conversion Kit	225074-B22
	Rack Adapter Kit	332815-B21
	NOTE: This kit allows HP rack servers to fit in racks that are 24" wide.	
HP Rack 10000 Series (Graphite Metallic)	10642 (42U) Infrastructure Rack (Low Voltage)	379006-001
	10642 (42U) Infrastructure Rack (High Voltage)	379005-001
	HP S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	HP Rack 10842 (42U, 800mm wide) – Pallet	257415-B21
	HP Rack 10842 (42U, 800mm wide) – Shock Pallet	257415-B22
	HP Rack 10647 (47U) – Pallet	245160-B21
	HP Rack 10647 (47U) – Crated	245160-B23
	HP Rack 10642 (42U) – Pallet	245161-B21
	HP Rack 10642 (42U) – Shock Pallet	245161-B22
	HP Rack 10642 (42U) – Crated	245161-B23
	HP Rack 10636 (36U) – Pallet	245162-B21
	HP Rack 10636 (36U) – Shock Pallet	245162-B22
	HP Rack 10636 (36U) – Crated	245162-B23
	HP Rack 10622 (22U) – Pallet	245163-B21
	HP Rack 10622 (22U) – Shock Pallet	245163-B22
	HP Rack 10622 (22U) – Crated	245163-B23
	NOTE: -B21 (pallet) used to ship empty racks shipped on a truck -B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels) -B23 (crated) used for air shipments of empty racks	
	NOTE: It is mandatory to use a shock pallet in order to ship racks with equipment installed. Not all HP equipment is qualified to be shipped in the Rack 10000 series.	
	NOTE: Please see the Rack 10000 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/10995_div/10995_div.HTML (Worldwide) http://h18000.www1.hp.com/products/quickspecs/10995_na/10995_na.HTML (North America)	
	NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html.	

Options

Rack Options for HP Rack 10000 Series

NOTE: For additional information regarding Rack Options, please see the following URL: http://h18000.www1.hp.com/products/servers/proliantstorage/rack-options/index.html.

HP Rack Light Kit (Neon)	361589-B21
HP Rack Plinth Kit (Carbon)	251960-B21
TFT5600 Rack Keyboard Monitor	221546-xx1
TFT7210R Rack Mounted 17" Monitor	348373-B21

NOTE: For a complete list of Monitors please view the following URL: http://h18004.www1.hp.com/products/monitors/.

1U Rack Keyboard & Drawer (Carbon)	257054-xx1

Country Code Key *(for 1U Rack Keyboard & Drawer (PN 257054-xx1))*

XX = 001	US	XX = 091	Norway
XX = 031	UK	XX = 101	Sweden/Finland
XX = 041	Germany	XX = 111	Switzerland
XX = 051	France	XX = 131	Portugal
XX = 061	Italy	XX = 181	Belgium
XX = 071	Spain	XX = 291	Japan
XX = 081	Denmark	XX = B31	International

HP KVM Switch Options

Server Console Switch (KVM), 0 x 1 x 8 port	336044-B21
Server Console Switch (KVM), 0 x 2 x 16 port	336045-B21
IP Console Switch Box (KVM/IP), 1 x 1 x 16	262585-B21
IP Console Switch Box (KVM/IP), 3 x 1 x 16	262586-B21
HP 1x4 USB/PS2 KVM Switch, RM (ALL)	371302-B21
HP 1x4 USB/PS2 KVM Switch, TT, (EURO)	371301-A21
HP 1x4 USB/PS2 KVM Switch, TT (UK)	371301-031
HP 1x4 USB/PS2 KVM Switch, TT, (AUST/NZ)	371301-011
HP 1x4 USB/PS2 KVM Switch, TT, (NA/JPN)	371301-D71
PS/2 Interface Adapter, 8 pack	262587-B21
PS/2 Interface Adapter, 1 pack	262588-B21
CAT5 KVM Expansion Module	262589-B21
Serial Interface adapter - 1 Pack with power supply	373035-B21
CAT5e Cable 3', 4 pack	263474-B21
CAT5e Cable 6', 8 pack	263474-B22
CAT5e Cable 12', 8 pack	263474-B23
CAT5e Cable 20', 4 pack	263474-B24
CAT5e Cable 40', 1 pack	263474-B25

NOTE: For additional information regarding HP KVM Switches and options, please see the following URL: http://h18004.www1.hp.com/products/servers/proliantstorage/rack-options/list.html#console

Rack Options for Round Hole and Telco Racks

ML370 Round Hole Rail Kit	231122-B21
ML370 Telco Rail Kit	231121-B21

Options

Service and Support Offerings (HP Care Pack Services)

Hardware Services On-site Service	
4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years	U4528A
4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4528E
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years	U4529A
4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4529E
Installation & Start-up Services	
Hardware Installation	U4538A
Hardware Installation, Electronic	U4538E
Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays.	U4539A
Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4539E
Support Plus	
Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays.	U4540A
Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4540E
Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays	U4542A
Onsite HW support, 8am-9pm, M-F, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4542E
Support Plus 24	
Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays.	U4541A
Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4541E
Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays.	U4543A
Onsite HW support 24x7, 4hr response and Linux O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4543E

NOTE: For more information, customer/resellers can contact http://www.hp.com/services/carepack.

Memory

HP ProLiant ML370 G3 Models
Standard Memory

1 GB PC2100 Registered DDR SDRAM DIMM Memory comes installed (2 x 512-MB SDRAM)

Standard Memory Plus Optional Memory

Up to 9,216-MB of memory is available with the optional installation of 8,192-MB PC2100 Registered DDR SDRAM DIMM Memory Option Kit (1 x 512MB)

Standard Memory Replaced with Optional Memory

Up to 12,288-MB of memory is available with the removal of the standard 1024-MB of memory and the optional installation of 12,288 -MB PC2100 Registered DDR SDRAM DIMM Memory Option Kit (3 x 4,096MB)

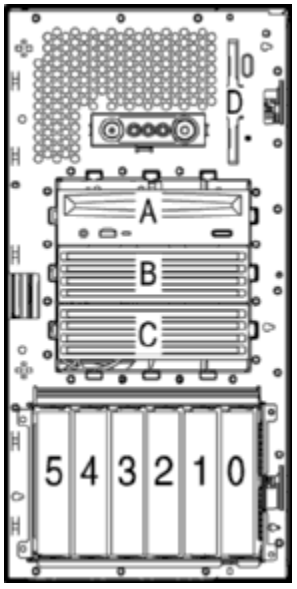
NOTE: This chart does not represent all possible memory configurations.

Memory		Slot					
		1	2	3	4	5	6
Standard	1,024 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Optional	9,216 MB	512 MB	512 MB	2048 MB	2048 MB	2048 MB	2048 MB
Maximum	12,288 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB	2048 MB

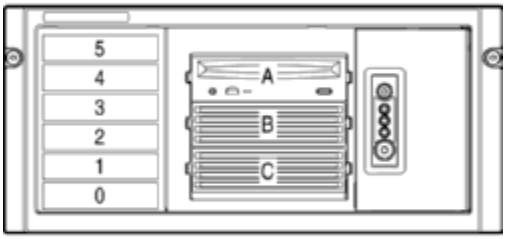
Following are memory options available from HP:

- 4096-MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 2048MB) 300682-B21
- 2048-MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 1024MB) 300680-B21
- 1024-MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 512MB) 300679-B21
- 512-MB of Advanced ECC PC2100 DDR SDRAM DIMM Memory Kit (2 x 256MB) 300678-B21

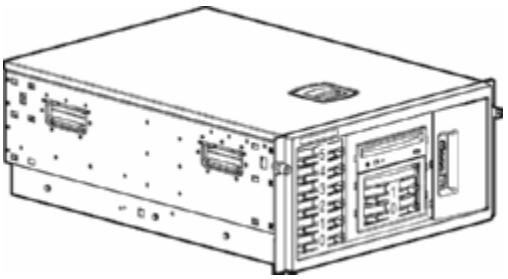
Storage



0 – 5	6 x 1" Hot Pluggable Hard Drive Bays
A	48x IDE CD-ROM Drive
B, C	Two available half height bays
D	1.44 MB Diskette Drive



0 - 5	6 x 1" Wide SCSI Hot Pluggable Hard Drive Bays
A	48x IDE CD-ROM Drive
B, C	Two available half height bays



A	48x IDE CD-ROM Drive
0 - 7	6 x 1" Wide SCSI Hot Pluggable Hard Drive Bays plus the ML3xx Two Bay Hot Plug SCSI Drive Cage

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
1.44-MB Diskette Drive	Up to 1	D	Integrated
IDE CD-ROM Drive	Up to 2	A, B	Integrated IDE
DVD-ROM Drive Option Kit	Up to 2	A, B	Integrated IDE
ML3xx Two Bay Hot Plug Wide SCSI Drive Cage	Up to 1	B, C	Integrated SCSI

Hard Drives

Ultra320 Hot Pluggable Drives

	Quantity Supported	Position Supported	Controller
1-inch	Up to 8	0-7	Integrated Dual Channel Wide Ultra3 SCSI Adapter
300-GB 10,000 rpm	(With optional		Smart Array 6402/128 Controller
146.8-GB 10,000 rpm	ML3xx Two Bay		Smart Array 6404/256 Controller
72.8-GB 10,000 rpm	Hot Plug SCSI		Smart Array 641 Controller
72.8-GB 15,000 rpm	Drive Cage)		Smart Array 642 Controller
36.4-GB 15,000 rpm			64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter

NOTE: All U320 Universal Hard Drives are backward compatible to U2 or U3 speeds. U320 drives require an optional U320 Smart Array Controller or U320 SCSI HBA to support U320 transfer rates.

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
Modular Smart Array 30 Family	Up to 13	External	Smart Array 6404/256 Controller Smart Array 642 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
Modular Smart Array 500 System	1	External	Please see the Modular Smart Array 500 QuickSpecs for the latest list of supported HBAs: http://www.hp.com/go/msa500
Modular Smart Array 1000	Please see the Modular Smart Array 1000 QuickSpecs below to determine configuration requirements	External	Please see the Modular Smart Array 1000 QuickSpecs (URL below) for the latest list of supported HBAs
Modular Smart Array 1500 cs	Please see the Modular Smart Array 1500 cs QuickSpecs below to determine configuration	External	Please see the Modular Smart Array 1500 cs QuickSpecs (URL below) for the latest list of supported HBAs

requirements

Modular Smart Array 1000: http://h18000.www1.hp.com/products/quickspecs/11033_div/11033_div.HTML (Worldwide)
http://h18000.www1.hp.com/products/quickspecs/11033_na/11033_na.HTML (North America)
Modular Smart Array 1500: http://www.hp.com/go/MSA1500cs

Maximum Storage Capacity (SCSI Enclosure) (Hot Plug)

Internal	2.40 TB (6 x 300 GB 1" Ultra320 hot plug hard drives with standard internal drive cage + 2 x 300 GB 1" Ultra320 hot plug hard drive using the optional ML3xx Two Bay Hot Plug SCSI Drive Cage)
External	105.00 TB (25 Storage Works Enclosures, each with 14 x 300 8GB Ultra320 1" drives, utilizing 6 x 4 channel 5300 SCSI controllers, plus integrated external channel for the 25th channel)
Total	107.40 TB

Tape Drives, Tape Autoloaders, & Tape Libraries

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Drives listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/North_America/10233.html (North America)
http://h18000.www1.hp.com/products/quickspecs/Division/10233.html (Worldwide)

NOTE: For an up-to-date listing of the latest O/S Support details for each of the Tape Autoloaders and Tape Libraries listed below, please see the following:
http://h18000.www1.hp.com/products/quickspecs/North_America/10809.html (North America)
http://h18000.www1.hp.com/products/quickspecs/Division/10809.html (Worldwide)

NOTE: For complete listing of tape drive offerings see
http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html

	Quantity Supported	Position Supported	Controller
HP StorageWorks Tape Drives, Internal, Hot plug DAT 72 Tape Drive DAT 40 Tape Drive	Up to 2 **NOTE:** drives are 1.5 height devices	0+1, 2+3, 4+5	Smart Array 6402/128 Controller Smart Array 6404/256 Controller Smart Array 642 Controller Smart Array 641 Controller 64-Bit/133-MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Tape Drives, Internal Ultrium 215 Ultrium 230 Ultrium 460 Ultrium 960 SDLT 320 Tape Drive	1	B + C	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Tape Drives, Internal DAT 72 Tape Drive DAT 40 Tape Drive DAT 24 Tape Drive DLT VS80 Tape Drive	2	B,C	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Tape Drives, External Ultrium 215	Up to 2	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

Storage

Ultrium 230 Ultrium 460 Ultrium 960 DAT 72 Tape Drive DAT 40 Tape Drive DAT 24 Tape Drive DLT VS80 Tape Drive SDLT 320 Tape Drive			
HP StorageWorks Tape Autoloader, Internal DAT 72x6 Tape Autoloader	1	B+C	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Autoloaders, External DAT 72x6 Tape Autoloader 1/8 Tape Autoloader SSL1016 Tape Autoloader	1 autoloader per SCSI channel	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Rack-mount Tape Drive Enclosures 1U Rack-Mount Kit 3U Rack-Mount Kit 5U Rack-Mount Kit	1 per SCSI channel	External	64-Bit/133MHz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks Tape Libraries, External MSL6060 (Ultrium 460 - based) MSL6030 (Ultrium 460 - based) MSL5026S2 (SDLT 320- based) MSL5052S2 (SDLT 320- based) MSL5030 (Ultrium 230 - based) MSL5060 (Ultrium 230 - based)	Please reference the MSL Tape Library QuickSpecs to determine configuration requirements	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS
HP StorageWorks ESL E-Series Tape Libraries ESL 712e ESL 630e ESL 322e ESL 286e	Please reference the ESL E-series Tape Libraries QuickSpecs to determine configuration requirements	External	64-Bit/133Mhz Dual Channel Ultra320 SCSI Adapter 64-Bit/66-MHz Dual Channel Wide Ultra3 SCSI Adapter, Alternate OS

Power Specifications

Part Number	216068-001
Spare Kit	230993-B21
Operational Input Voltage Range (V rms)	90 to 264
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

Nominal Input Voltage (Vrms)	**100**	**115**	**208**	**220**	**230**	**240**
Max Rated Output Wattage Rating	500	500	500	500	500	500
Nominal Input Current (A rms)	8.1	6.9	3.8	3.5	3.4	3.2
Max Rated Input Wattage Rating (Watts)	794	781	769	758	758	758
Max. Rated VA (Volt-Amp)	810	797	785	773	773	773
Efficiency (%)	63	64	65	66	66	66
Power Factor	.98	.98	.98	.98	.98	.98
Leakage Current (mA)	.30	.35	.63	.67	.70	.73
Maximum Inrush Current (A peak)	25	25	25	25	25	25
Maximum Inrush Current duration (mS)	20	20	20	20	20	20

System Specifications

ProLiant ML370 Generation 3 Fully Configured

Up to 2 Processors, 6 Memory Slots, 8 Hard Drives, 4 PCI Slots, and 2 Hot Plug Power Supplies

Nominal Input Voltage (Vrms)	**100**	**115**	**208**	**220**	**230**	**240**
Fully Loaded System Input Wattage (W)	704	693	682	672	672	672
Fully Loaded System Thermal (BTU-Hr)	2399	2362	2325	2290	2290	2290
System Leakage with all power supplies loaded (mA)	0.61	0.70	1.27	1.34	1.40	1.46
System Inrush Current with all power supplies loaded (A)	50	50	50	50	50	50
Power cord requirements	Nema 5-15P to IEC320-C13 Option no./Spare no.: See Chart below					
	IEC320-C13 to IEC320-C14 Option no./Spare no.: 142257-002/142258-B21					

NOTES:

* - To review typical system power ratings use the Active Answers Power Calculator which is available via the online tool located at URL: http://h30099.www3.hp.com/configurator/powercalcs.asp.

To drill down to calculators:
- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: ML370 G3
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

Power Specifications

Power Cords (13 Cord Sets)	**Power Cord Part Number**
Country	
APD	139867-006
APD	100613-003
APD	100614-003
Australia	100611-007
Europe	100614-003
France	100614-003
Germany	100614-003
Japan	139867-006
PRC	139867-006
PRC	100613-003
PRC	100661-007
UK	100613-003
US	163719-002

System Unit - Tower	**Dimensions**	18.46 x 8.69 x 28 in (46.88 x 22.07 x 71.12 cm)	
	Weight	70 lb (31.75 kg) (without hard drives, no RPS)	
	Input Requirements	Range Line Voltage	90 to 264 VAC
		Rated Input Voltage	90 to 264 VAC
		Rated Input Frequency	47 to 63 Hz
		Rated Input Current	7.3A (110 V) to 3.6A (220 V)
		Rated Input Power	800W
	BTU Rating	2,732 BTU/HR	
	SCSI Connectors	Two Internal HD68 connectors and One External VHDCI Connector supporting Ultra3	
	Power Supply Output Power	Steady State Power	500 W
		Maximum Peak Power	550W
	Temperature Range	Operating	41° to 95° F (5° to 35° C)
		Shipping	-40° to 185° F (-40° to 85° C)
	Relative Humidity (non-condensing)	Operating	5% to 95%
		Non-operating	5% to 95%
	Acoustic Noise	Idle (Fixed Disk Drives Spinning)	
		L WAd (BELS)	5.9
		L pAm (dBA)	41
		Operating (Random Seeks to Fixed Disks)	
		L WAd (BELS)	6.0
		L pAm (dBA)	42

System Unit - Rack	**Dimensions**	8.69 x 19.0 x 25.75 in (22.07 x 48.26 x 65.43 cm)	
	Weight	65 lb (29.48) (without hard drives, no RPS)	
	Input Requirements	Range Line Voltage	90 to 264 VAC
		Rated Input Voltage	90 to 264 VAC
		Rated Input Frequency	47 to 63 Hz
		Rated Input Current	7.3A (110 V) to 3.6A (220 V)
		Rated Input Power	800W
	BTU Rating	2,732 BTU/HR	
	SCSI Connectors	Two Internal HD68 connectors and One External VHDCI Connector supporting Ultra3	
	Power Supply Output Power	Steady State Power	500 W
		Maximum Peak Power	550 W
	Temperature Range	Operating	41° to 95° F (5° to 35° C)
		Shipping	-40° to 185° F (-40° to 85° C)
	Relative Humidity (non-condensing)	Operating	5% to 95%
		Non-operating	5% to 95%
	Maximum Wet Bulb Temperature	101.7° F (38.7° C)	
	Acoustic Noise	Idle (Fixed Disk Drives	

		Spinning)	
		L WAd (BELS)	5.9
		L pAm (dBA)	41
		Operating (Random Seeks to Fixed Disks)	
		L WAd (BELS)	6.0
		L pAm (dBA)	42
Optional Redundant Power Supply	**Input Requirements**	Rated Input Voltage	90 to 264 VAC
		Rated Input Frequency	47 to 63 Hz
		Rated Input Current	7.3A (110 V) to 3.6A (220 V)
		Rated Input Power	800W
	BTU Rating	2,732 BTU/HR	
	Power Supply Output Power	Steady State Power	500 W
		Maximum Peak Power	550W
	Temperature Range	Operating	41° to 95° F (5° to 35° C)
		Shipping	-40° to 185° F (-40° to 85° C)
	Relative Humidity (non-condensing)	Operating	5% to 95%
		Non-operating	5% to 95%
	Maximum Wet Bulb Temperature	101.7° F (38.7° C)	
48X Max IDE CD-ROM Drive	**Disk**	Applicable Disk	CD-ROM, CD-XA, CD-DA (Mode 1, Mode 2, Form 1 and 2)
			Photo CD (Single and Multi-session)
			Mixed Mode (Audio and Data combined)
			CD-R
		Capacity	540 MB (Mode 1, 12 cm)
			650 MB (Mode 2, 12 cm)
	Block Size	Mode 1	2,048 bytes, 1024 bytes
		Mode 2	2,340 bytes, 2,336 bytes, 1024 bytes
		CD-DA	2,352 bytes
		CD-XA	2,328 bytes
	Interface	IDE (ATAPI)	
	Access Times (typical)	Random	<100 ms
		Full-Stroke	<150 ms
	Data Transfer Rate	Sustained	3000 to 7200 KB/s (20X to 48X)
		Burst	150 KBps to 7,200 KBps
		Bus Rate	16.7 MBps
	Cache Buffer	128 KB	
	Start-up Time (typical)	< 7seconds	
	Stop Time	< 4seconds	
	Laser Parameters	Type	Semiconductor Laser GaA1As
		Wave Length	780 ± 25 nm
	Operating Conditions	Temperature	41° to 113° F (5° to 45° C)
		Humidity	10% to 80%

Technical Specifications

	Dimensions	(HxWxD, maximum)	1.7 x 5.85 x 8.11 in (42.9 x 150 x 208 cm)
		Weight	2.09 lb (0.95 kg)
Integrated Dual Channel Wide Ultra3 SCSI Adapter	**Drives Supported**	Up to 15 SCSI devices per channel	
	Data Transfer Method	64-bit PCI bus-master	
	SCSI Channel Transfer Rate	160 MB/s per channel	
	Maximum Transfer Rate per PCI Bus (peak)	267 MB/s	
	SCSI Termination	Active Termination	
	SCSI Connectors	1 external, 2 internal (68-pin)	
NC7781 PCI-X Gigabit NIC (embedded) **Server Adapter**	**Network Interface**	10/100/1000-T	
	Compatibility	IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 80.3u 100Base-TX	
	Data Transfer Method	64-bit/133MHz PCI-X	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Full-Duplex)	2000 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP; up to 328 ft (100 m)
Integrated Lights-Out (integrated on system board)	**Architecture**	32-bit PCI-based health and remote management ASIC (Application Specific Integrated Circuit)	
	Processor	32-bit RISC processor core running at 66MHz	
	Upgradeability	Option firmware upgradeable via flash ROM.	
	Video Support	Utilizes the host server's embedded video chip. Supports VGA/SVGA, 640 x 480 (256 to 16.7M colors), 800 x 600 (256 to 16.7M colors), 1024 x 768 (256 to 65K colors), 1280 x 1024 (256 colors)	
	Interfaces	One Ethernet network connection (10/100 Mb/s)	
	Memory	2-MB Flash ROM 8-MB SDRAM	
	Operating System Support	Microsoft Windows NT 4.0 Server Windows NT 4.0 Enterprise Edition Windows 2000 Server Windows 2000 Advanced Server Windows Server 2003 Standard Edition Windows Server 2003 Enterprise Edition Windows Server 2003 Small Business Edition Red Hat 7.x	

	SuSE 7.0
	Novell NetWare 5.x, 6.x
Client Browser Support	Microsoft Internet Explorer 5.5 or later.
iLO Standard Features	Virtual Text Remote Console
	Virtual Power Button Control
	Dedicated LAN Connectivity
	Automatic IP Configuration via DHCP/DNS/WINS
	Industry Standard 128-bit Secure Sockets Layer (SSL) Security
	IML and iLO Event Logging
	Support for up to 12 user accounts with customizable access privileges
iLO Advanced Features	Virtual Graphical Remote Console
	Virtual Floppy Drive

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